L1: Entry 51 of 54 File: USPT Jan 10, 1989

DOCUMENT-IDENTIFIER: US 4797285 A
TITLE: Lipsome/anthraquinone drug composition and method

Detailed Description Paragraph Right (23):
The lipophilic free radical scavenger used in the composition of the invention is preferably .alpha.-T, or a pharmacologically acceptable analog or ester thereof, such as .alpha.-T succinate. Other suitable free radical scavengers include butylated hydroxytoluene (BHT), propyl gallate (Augustin), and their pharmacologically acceptable salts and analogs. Additional lipophilic free radical quenchers which are acceptable for parenteral administration in humans, at an effective level in liposomes, may also be used. The free radical quencher is typically included in the lipid components used in preparing the liposomes, according to conventional procedures. Preferred concentrations of the protective compound are between about 0.2 and 2 mole percent of the total lipid components making up the liposomes; however, higher levels of the compound, particularly .alpha.-T or its succinate analog, are compatible with liposome stability and are pharmacologically acceptable.

L1: Entry 45 of 54 File: USPT Nov 21, 1989

DOCUMENT-IDENTIFIER: US 4882165 A
TITLE: Light sensitive liposomes

Detailed Description Paragraph Right (13):
The light sensitive liposome composition was prepared from a mixture of DRPC, LRPC (lysoretinoyl-sn-3-glycerophosphocholine), tocopherol and BHT, wherein the four components were in a ratio of 1:1:1:0.15. The starting components were formed into light sensitive liposomes by ethanol injection in an isotonic buffer including 6-mercaptopurine riboside (6-MPR). The light sensitive liposomes so prepared were separated from unencapsulated 6-MPR by chromatography. Another batch of light sensitive liposomes, but without 6-MPR in the encapsulated fluid, was prepared as control light sensitive liposomes.

L1: Entry 42 of 54 File: USPT May 14, 1991

DOCUMENT-IDENTIFIER: US 5015483 A
TITLE: Liposome composition for the stabilization of oxidizable substances

Detailed Description Paragraph Right (23):
To further enhance the resistance to oxidation of the encapsulated material, the lipid layer and/or the aqueous layer may further include an antioxidant or oxygen scavenger Typical antioxidants include ascorbic acid, ascarbyl palmitate, butylated hydroxy anisole (BHA), butylated hydroxy toluene (BHT), EDTA, citric acid, propyl gallate, tocopherols, enzymes, and others as are well known in the art. I0 As a further embodiment, the lipidic bilayer of the liposome may include a desired amount of a lipid capable of releasing a hydrogen ion to further stabilize the oxidizable unsaturated lipophilic material. The preferred lipids are those which contain a vicinal amino or vicinal hydroxyl group along the polar head region of the lipid molecule. For example, in the instance of vicinal amino groups, a glycolipid having a galactosamine or glycocyamine residue is a suitable lipid. More commonly, the lipids will have a vicinal hydroxyl group at the polar head region. The preferred lipids include the glycolipids such as lactosyl lexosyl ceramide, galoctocerebroside, gangliosides, and trihexosylceramide, and phosphatidylinositol. When the lipid bilayer of the liposome is to include a lipid capable of releasing a hydrogen ion, it is preferred that the lipid be combined with the other lipids in a molar amount of about 10%. By including a suitable amount of the lipids in the lipidic bilayer, a source of donatable hydrogen ions is provided to the lipidic bilayer It is generally understood that the ability to donate hydrogen ions provides a means of removing the active radicals from the autoxidation chain reaction.